REMARKS:

In response to the objection to Figs. 4-7 of the drawings, Applicant submits replacement sheets containing corrected versions of these drawings. The corrected drawings have been amended in the manner required by the Examiner in the Office Action

Claims 41, 43, 58, and 66 stand rejected on the ground of obviousness-type double patenting over claim 1 of U.S. Patent 6,714,936. In response, a Terminal Disclaimer is filed herewith.

Claims 49, 52, 57, and 64 have been objected to as being informal. In response, claim 64 is amended. Applicant respectfully contends that claims 49, 52, 57, and 64 as amended are unambiguous, formal, and satisfy all applicable statutory and regulatory requirements.

The Examiner has objected to the following step recited in method claim 49: designating one of the nodes as a point of view, linking a number of the nodes directly to the point of view, and calculating individual link distances from each of at least some of the nodes to the point of view, thereby determining a hierarchical network of the nodes which is amenable to visualization.

Claim 49 recites the steps that Applicant regards as his invention. It recites no "optional" step. In particular, the above-noted "designating," "linking," and "calculating" recited steps are not optional. The limitation "thereby determining a hierarchical network of the nodes which is amenable to visualization" is also an explicit and mandatory (not an optional) limitation. Applicant requests that the Examiner identify a statutory or regulatory basis for any further objection to claim 49.

Claim 52 recites the step of "displaying representations of the nodes as a sea of node representations, viewed from said point of view." The phrase "said point of view" is unambiguously the node designated as "a point of view" in claim 49 (from which claim 52 depends) and thus has clear antecedent basis in claim 49.

The Examiner has objected to the following step of claim 57: "implementing a user interface which displays representations of at least some of the nodes, wherein the user interface implements a simple command and query syntax which is amenable to a voice interface."

Claim 57 recites the steps that Applicant regards as his invention. It does not recite any optional step. In particular, the "implementing" step is not optional. The limitation "wherein the user interface implements a simple command and query syntax which is amenable to a voice interface" is also an explicit and mandatory (not an optional) limitation which defines the implemented user interface. Applicant requests that the Examiner identify a statutory or regulatory basis for any further objection to claim 57.

Amended claim 64 does not include the phrase to which the Examiner has objected.

Claims 41, 49, 58, 62, 63, and 66 stand rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. For the following reasons, Applicants respectfully contend that claims 41, 49, 58, 62, 63, and 66 as hereby amended are directed to statutory subject matter.

The Examiner contends that the rejected claims are non-statutory because they do not produce a "useful, concrete and tangible result" and recite only "an abstraction." Applicant contends that the rejected claims are clearly directed to statutory subject matter under the standard set forth in State Street Bank & Trust Co. v. Signature Financial Group Inc., 47 USPQ2d 1596 (Fed. Cir. 1998). In State Street Bank & Trust Co. v. Signature Financial Group Inc., the U.S. Court of Appeals for the Federal Circuit reversed a U.S. District Court judgment of invalidity of claims (for claiming subject matter not encompassed by 35 U.S. C. 101), holding that the claims are directed to a machine made up of specific structures and thus are directed to proper statutory subject matter under 35 U.S.C. 101. The Court held that a claimed invention is not an unpatentable mathematical algorithm if it produces a "useful, concrete and tangible result" (namely a "share price" of a financial portfolio that is "accepted

and relied upon by regulatory authorities and in subsequent trades"). See 47 USPQ2d 1596 at 1601. The Court noted at 47 USPQ2d 1600 that "it is of little relevance whether …[each claim] is directed to a 'machine' or a 'process,' as long as it falls within at least one of the four enumerated categories of patentable subject matter."

Each claim rejected under 35 U.S.C. 101 is directed to a method , which is a synonym for a "process" as recited in 35 U.S.C. 101 and is one of the categories of patentable subject matter enumerated in 35 U.S.C. 101. Each claim is clearly directed to statutory subject matter consistent with the holdings of State Street Bank & Trust Co. v. Signature Financial Group Inc., since each is directed to a method (a "process" as recited in 35 U.S.C. 101) that produces a "useful, concrete and tangible result."

Claim 41 is a method for creating a highly connected network of nodes indicative of computer-readable data, including steps of capturing data contained in at least one legacy database; and structuring the captured data as a set of linked nodes. This method clearly produces a useful result (a database comprising linked nodes indicative of computer-readable data) from data contained in another database (a "legacy" database). Computer-readable databases are well known to be useful and are commercially important products. Computers routinely and usefully execute various ones of the many commercially available software products to produce such databases. Businesses and other consumers spend large amounts of money each year to acquire such software and/or engage personnel to use such software to produce computer-readable databases, and clearly would not do so if the databases were not useful. The method of claim 41 produces a concrete and tangible result since its product (a database comprising linked nodes indicative of computer-readable data) is not only useful but concrete and tangible.

Claim 58 is a method including a step of structuring computer-readable data as a set of linked nodes. Like claim 41, this method clearly produces a useful result: a database comprising linked nodes indicative of computer-

readable data. For the same reasons set forth with reference to claim 41, the method of claim 58 produces a result that is not only useful but concrete and tangible.

Amended claim 49 is a method including steps of determining a set of linked nodes indicative of computer-readable data, designating one of the nodes as a point of view, linking a number of the nodes directly to the point of view, and calculating individual link distances from each of at least some of the nodes to the point of view, thereby determining a hierarchical network of the nodes. Like claims 41 and 58, this method clearly produces a useful result: a database comprising linked nodes indicative of computer-readable data. For the same reasons set forth with reference to claim 41, the method of amended claim 49 produces a result that is not only useful but concrete and tangible.

Each of amended claims 62, 63, and 66 is a method of establishing a set of linked nodes indicative of computer-readable data, from data (e.g., files) specified in each claim. Like claims 41 and 58, this method clearly produces a useful result: a database comprising linked nodes indicative of computer-readable data. For the same reasons set forth with reference to claim 41, the method of each of amended claims 62, 63, and 66 produces a result that is not only useful but concrete and tangible.

Claims 41-44, 60-61, and 66 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,154,750 ("Roberge"). Applicant contends that the rejected claims as hereby amended are patentable over Roberge for the following reasons.

Roberge fails to teach or suggest a method for creating a network of nodes (indicative of computer-readable data) including the step of structuring data as (or establishing) a set of (or associating) linked nodes, where the linked nodes are structured such that when one of the nodes is designated as a point of view, representations of the nodes can be displayed as a sea of node representations, viewed from said point of view (as recited in claim 41, 60 or 66) or the steps of structuring data as a set of linked nodes (where the set of

linked nodes is structured such that when one of the nodes is designated as a point of view, representations of the nodes can be displayed as a sea of node representations), designating one of the nodes as the point of view, and displaying said representations of the nodes as said sea of node representations viewed from said point of view (as recited in claim 43).

Roberge teaches a database structured as a hierarchy of nodes, as shown in Roberge's Fig. 1, and teaches that representations of nodes ("buttons") can be displayed as shown in Figs. 7-15. However, there is no teaching or suggestion in Roberge to designate one of a set of linked nodes as a point of view, or that representations of the nodes in the set can or should be displayed as a sea of node representations viewed from the point of view (as recited in claims 41, 43, 60, and 66).

Roberge also fails to teach (e.g., with reference to Fig. 4 as cited by the Examiner or elsewhere) display of nodes (e.g., a "sea" of nodes) as viewed from one of the nodes that has been designated as a point of view. Even assuming for the sake of argument that an element of Roberge's Fig. 4 is a node that has been designated as a point of view, Roberge neither teaches nor suggests that representations of nodes can or should be displayed as a sea of node representations viewed from such point of view. Elements 42 and 44 of Roberge's Fig. 4 are simply echocardigraphic reports which appear to be arranged side-by-side in a plane. Even if the elements of Roberge's Fig. 4 and 7-15 are considered for the sake of argument to be representations of nodes, such elements are not displayed from the point of view of any of the elements (i.e., from the point of view of any node).

All claims that depend directly or indirectly from claim 41, 43, 60, or 66 are patentable over Roberge for the above-discussed reasons that independent claims 41, 43, 60, or 66 are patentable over Roberge.

Claims 49-57 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,751,931 ("Cox"). Applicant contends for the following reasons that the rejected claims as hereby amended are patentable over Cox.

Claim 49 as amended, is a method for interactively exploring, accessing, and visualizing information in a highly connected network of nodes,

that recites steps of designating one of the nodes (of a set of linked nodes) as a point of view, linking a number of the nodes directly to the point of view, and calculating individual link distances from each of at least some of the nodes to the point of view, thereby determining a hierarchical network of the nodes which is amenable to visualization. As explained on page 10 of the specification of the present application (in the "Definitions" section), the expression "link distance" is used in the present application to denote the minimum number of links between two nodes of a set of linked nodes.

Cox discloses a method for displaying "three dimensional" and other representations of data (e.g., geographical data) on the screen of a computer monitor. For example, Cox discloses displaying a two dimensional map (which represents the earth surface) with paths between points on the map, as in Cox's Figs. 10A, 10B, 10C, and 21. However, there is no teaching or suggestion determinable from Cox to designate a node (of a set of linked nodes) as a point of view, or to calculate individual link distances (i.e., minimum number of links between two nodes of the set) from each of at least some of the nodes to the point of view (as recited in claim 49).

The Supplemental Information Disclosure Statement filed herewith lists U.S. Patent 5,596,703 ("Eick") which issued based on US Application No. 08/141,885. US Application No. 08/141,885 is cited in Cox at col. 9, lines 23-29.

Neither Cox (at col. 5, lines 15-17, col. 8, lines 18-31, col. 9, lines 23-32, col. 12, lines 52-59, col. 14, lines 53-59, or with reference to Fig. 10A, 10B, 10C, or 21 as cited by the Examiner, or elsewhere) nor Eick teaches calculation of individual link distances from each of at least some of the nodes (of a set of linked nodes) to one of the nodes that has been designated as a point of view. Cox mentions a "weighted link distance" for a first node (representing a telephone number) that is displayed with other nodes representing foreign countries. However, Cox's "weighted link distance" is not a link distance (i.e., minimum number of links between Cox's first node and any of Cox's other nodes) as recited in claim 49 and is not calculated by calculating link distances of the type recited in claim 49. Rather, Cox's "weighted link distance" is apparently determined as follows: (a) an arbitrary trial location is determined for displaying Cox's first node; (b) a distance is determined between the location of the first node and the location of each displayed node of each

foreign country containing another telephone called by the telephone associated with the first node (the "first" telephone), (c) a weighted sum of such distances is determined (by assigning a weight indicative of the number of calls made by the first telephone to each country); (d) a different trial location is chosen for displaying Cox's first node and steps (b) and (c) are repeated for this new location; and (e) the trial location (for displaying Cox's first node) having the smallest weighted sum is chosen as the best location for displaying Cox's first node. Cox's method does not determine the number (or minimum number) of links between any pair of Cox's nodes. Rather, Cox apparently assumes that there is one and only one link between Cox's first node and each node to be displayed with a determined distance relative to Cox's first node, where such single link indicates that at least one international call has been made from a telephone associated with the first node to a telephone associated with the other node.

All claims that depend directly or indirectly from claim 49 are patentable over Cox for the above-discussed reasons that independent claim 49 is patentable over Cox.

Claims 58-59 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,546,529 ("Bowers").

Claim 58 recites a method including a step of structuring computer-readable data as a set of linked nodes. The set of linked nodes is structured such that when one of the nodes is designated as a point of view, representations of the nodes can be displayed as a sea of node representations, viewed from said point of view.

Bowers teaches displaying node representations ("NRs") with a tree structure as shown in Bowers' Figs. 2a and 2b. The Fig. 2b display differs from that of Fig. 2a in that the Fig. 2b display is distorted by projecting the Fig. 2a NRs on rectangular panel 204 and trapezoidal panels 205 and 206. Thus, the Fig. 2b display appears as if some NRs are displayed on a center "front" panel 204 and others are displayed on panels 205 and 206 which are folded back from the front panel. The NRs are displayed in columns with a "top level" NR in the leftmost column (displayed in center panel 204), the next level (below the top level) NRs in the next column to the right, and so on. Unless only a single NR is displayed, two or more NRs are always displayed in center panel 204. At col. 8,

lines 32-38, Bowers teaches scrolling NRs across panels 204-206 to bring a selected NR (and each other NR displayed in the same row as the selected NR) into the center panel (e.g., panel 204 of Fig. 2b).

Even if one assumes for the sake of argument that selection of one of Bowers' nodes (as taught at Bowers' col. 8, lines 20-37) amounts to designation of the node as a point of view, Bowers fails to teach or suggest (including with reference to Figs. 2a, 2b, and 6, or at col. 8, lines 14-42, cited in the Office Action) structuring data as a set of linked nodes such that that when one of the nodes (e.g., the document node of col. 8, lines 32-37) is designated as a point of view, representations of the nodes can be displayed as a sea of NRs viewed from the point of view. Rather, Bowers teaches display of the same set of NRs when any of the nodes represented by any of the NRs in the center panel of the display has been selected. The center panel of each such display includes at least one NR that is not viewed from the point of view of the selected node.

Thus, claim 58 and claim 59 which depends therefrom are patentable over Bowers.

Claim 62 stands rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,295,261 ("Simonetti").

Claim 62 recites a method including a step of structuring computer-readable data as a set of linked nodes, wherein the set of linked nodes is structured such that when one of the nodes is designated as a point of view, representations of the nodes can be displayed as a sea of node representations, viewed from said point of view.

Simonetti teaches a database and teaches that representations of nodes can be displayed with a tree structure as shown in Figs. 2C and 3A. However, there is no teaching or suggestion in Simonetti to designate one of the nodes as a point of view, or that representations of the nodes can or should be displayed as a sea of node representations viewed from the point of view (as recited in claim 62).

Simonetti also fails to teach (e.g., with reference to Figs. 3A, 3B, and 3C as cited by the Examiner, or elsewhere) display of nodes (e.g., a "sea" of

nodes) as viewed from one of the nodes that has been designated as a point of view. Even assuming for the sake of argument that an element of Simonetti's Fig. 3A (or 2A or 3C) is a node that has been designated as a point of view, Simonetti neither teaches nor suggests that representations of nodes can or should be displayed as a sea of node representations viewed from such point of view. Nodes 51-54 of Simonetti's Fig. 3A (or 2C or 3C) appear to be arranged side-by-side in a plane. Even if the elements of Simonetti's Figs. 2C, 3A, and 3C are considered to be representations of nodes, such elements are not displayed from the point of view of any of the elements (i.e., from the point of view of any node).

Thus, claim 62 is patentable over Simonetti.

Claims 63-65 and 76-78 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,336,123 ("Inoue").

Each of claims 63 and 76 recites a method including a step of structuring computer-readable data as a set of linked nodes, wherein the set of linked nodes is structured such that when one of the nodes is designated as a point of view, representations of the nodes can be displayed as a sea of node representations, viewed from said point of view.

Inoue teaches a database and teaches that representations of nodes can be displayed with a tree structure as shown in Figs. 22 and 24. However, there is no teaching or suggestion in Inoue to designate any one of the nodes as a point of view, or that representations of the nodes can or should be displayed as a sea of node representations viewed from the point of view (as recited in claim 63 or 76).

Inoue also fails to teach (e.g., with reference to Figs. 22 and 24 as cited by the Examiner, or elsewhere) display of nodes (e.g., a "sea" of nodes) as viewed from one of the nodes that has been designated as a point of view. Even assuming for the sake of argument that an element of Inoue's Fig. 22 or 24 is a node that has been designated as a point of view, Inoue neither teaches nor suggests that representations of nodes can or should be displayed as a sea of node representations viewed from such point of view. The nodes of Inoue's Figs. 22 and 24 appear to be arranged side-by-side in a plane. Even if the

elements of Inoue's Figs. 22 and 24 are considered to be representations of nodes, such elements are not displayed from the point of view of any of the elements (i.e., from the point of view of any node).

Thus claims 63 and 76 and all claims that depend directly or indirectly therefrom are patentable over Inoue.

Respectfully submitted,
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